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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,486	04/09/2001	Thomas J. Hiblar	BSCO115539	8074

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EXAMINER

ODLAND, KATHRYN P

ART UNIT PAPER NUMBER

3743

DATE MAILED: 02/02/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/829,486

Applicant(s)

HIBLAR ET AL.

Examiner

Kathryn Odland

Art Unit

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 27-32 is/are pending in the application.
- 4a) Of the above claim(s) 29-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 27 and 28 is/are rejected.
- 7) ☒ Claim(s) 4 and 6-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 and 5. 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

This is a response to the amendment dated December 10, 2003. Claims 1-8 and 27-32 are pending. Claims 9-26 have been cancelled. Claims 37-32 have been added.

However, it appears that claims 29-32 are not directed to the species elected. Thus, claims 29-32 have not been examined.

Election/Restrictions

1. Applicant's election without traverse of Species I (Figures 1A-1C) in Paper No. 4 is acknowledged. Claims 37-32 have been added. However, it appears that claims 29-32 are not directed to the species elected. Thus, claims 29-32 have not been examined.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 3, 5, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bean in US Patent No. 5,964,004 in view of Minton in US Patent No. 5,457,841.

Regarding claim 1, Bean discloses a device having a flexible drive shaft (generally at 20 and associated components). The specification of the current application does not demonstrate any degree of flexibility. Thus, the components

of Bean have flexibility. Further, Bean discloses an ablation burr (generally at 10) rotationally coupled to the drive shaft, the ablation burr having a proximal end including at least one flexible annular disk (15) having a center hole and an outer edge, as seen in figures 1 and 2, where the shaft (generally at 20) passes through the center hole; a distal end having a nose member (generally at the arrow designating numeral 10 in figure 1); and a catheter extending over the drive shaft, the catheter adapted to slidably receive the at least one flexible annular disk in a folded configuration, as recited in column 3, lines 35-43, columns 4-6 and seen in figures 1-6.

However, Bean does not explicitly recite, an annular disk having an abrasive disposed on a forwardly facing surface or a nose having an abrasive leading surface. On the other hand, Minton teaches abrasive on a forwardly facing surface of an annular disk and a nose having an abrasive leading surface, as recited throughout the specification and seen in figures 1-7. Thus, it would be obvious to modify the invention of Bean to include abrasive as taught by Minton for the purpose of enhanced cleaning ability.

Regarding claim 2, Bean as modified by Minton, disclose that as applied to claim 1. Further, Bean discloses 1, further a support member (such as 31) secured to the drive shaft wherein the at least one flexible annular disk is received by the support member, as seen in figure 6.

Regarding claim 3, Bean as modified by Minton, disclose that as applied to claim 2. Further, Bean discloses at least one flexible annular disk that has a plurality of radial cuts (17) therethrough, the radial cuts (17) each having a first end disposed at a location radially outward from the center hole and a second end disposed at the outer edge, the radial cuts defining a plurality of disk segments, as seen in figure 1.

Regarding claim 5, Bean as modified by Minton, disclose that as applied to claim 3. Further Bean discloses at least three flexible annular disks that are axially spaced apart and attached to the support member. Although Bean does not explicitly recite annular disks having different diameters, it would be obvious to one with ordinary skill in the art to have different diameters for the purpose of providing a graduation effect.

Regarding claim 27, Bean discloses a device having a flexible drive shaft (generally at 20 and associated components) having a distal end. The specification of the current application does not demonstrate any degree of flexibility. Thus, the components of Bean have flexibility. Further, Bean discloses an ablation burr fixedly attached to the distal end of the flexible drive shaft, the ablation burr (generally at 10) having a flexible portion; and a catheter extending substantially over the length of the flexible drive shaft, the catheter defining a lumen having a first diameter, wherein the flexible portion of the

ablation burr is adapted to flex between a first position, wherein the flexible portion is slidably received into the lumen and a second position, wherein the flexible portion of the burr has a transverse dimension greater than the catheter first dimension, as recited in column 3, lines 35-43, columns 4-6 and seen in figures 1-6.

However, Bean does not explicitly recite a flexible portion including an abrasive surface. On the other hand, Minton teaches an abrasive surface, as recited throughout the specification and seen in figures 1-7. Thus, it would be obvious to modify the invention of Bean to include abrasive as taught by Minton for the purpose of enhanced cleaning ability.

Regarding claim 28, Bean as modified by Minton discloses that as applied to claim 27, as well as, Bean discloses a flexible portion of the ablation burr that has a plurality of annular disks (15) fixedly attached to the flexible drive shaft, the annular disks having a plurality of radial cuts (17) therethrough.

However, Bean does not explicitly recite annular disks further having an abrasive disposed on a forwardly facing surface. On the other hand, Minton teaches annular disks having an abrasive, as recited throughout the specification and seen in figures 1-7. Thus, it would be obvious to modify the invention of Bean to include abrasive as taught by Minton for the purpose of enhanced cleaning ability.

Allowable Subject Matter

4. Claims 4 and 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are as follows: US Patent No. 5,009,659 and US Patent No. 4,530,125.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathryn Odland whose telephone number is (703) 306-3454. The examiner can normally be reached on M-F (7:30-5:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry A Bennett can be reached on (703) 308-0101. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9302.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.


Henry Bennett
Supervisory Patent Examiner
Group 3700

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